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(54) Title: LED ILLUMINATED LAMP WITH THERMOELECTRIC HEAT MANAGEMENT

(57) Abstract: The present invention relates to Light Emitting Diode (LED) based lamps utilising thermoelectric modules improving the efficiency of the lamps. The present invention provides in a first aspect a light illuminating device that comprises at least one light emitting diode (LED), at least one thermoelectric module (TEM) having a first surface which is thermally connected to the LED, a heat sink thermally connected to a second surface of the at least one TEM, a thermally insulating cover creating a chamber substantially insulating the LED from ambient air. The LED may be of any conventional type, the invention however is particularly useful for devices using hi-flux LEDs, including traffic lights, illuminated roadway and/or emergency signs, airport runway lights and such.

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